

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Klima on 10/07/2011.

The application has been amended as follows: Claims 1, 8, 30, and 32 are amended and new Claim 43 is added which depends from Claim 4.

--1. A self-propelled Micro UAV configured for aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000, and comprising a fore wing and an aft wing in tandem close-coupled arrangement,

wherein ~~at least a majority of~~ a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a positive gap,

wherein an average value for said gap is less than a root chord of said fore wing,

~~wherein said front wing is unconnected to said aft wing,~~

wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and a tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, the fore wing and aft wing being disposed at

Art Unit: 3644

different heights, and said arrangement being free of additional wings or tail arrangement, said Reynolds numbers being based on a characteristic chord length of one of said fore wing and said aft wing.

8. A self-propelled Micro UAV configured for aerodynamic flight at flight speeds in the range between about 10 m/s to about 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000, and comprising a fore wing and an aft wing in tandem close-coupled arrangement,

wherein ~~at least a majority of~~ a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a positive flap,

wherein an average value for said flap is less than a root chord of said fore wing,

wherein said aft wing has side panels and control surfaces on at least one of said aft wing and said side panels, and a tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, said fore wing and said aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement,

wherein said Reynolds numbers are based on a characteristic chord length of one of said fore wing and said aft wing,

wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of ~~planform~~ both fore and aft wing planform areas of said tandem arrangement is at least 70% of the product $W \times L$.

30. A self-propelled Micro UAV configured for aerodynamic flight at flight speeds in the range between 10 m/s to 20 m/s at Reynolds numbers in the range between about 20,000 and about 300,000 and comprising a fore wing and an aft wing in tandem close-coupled arrangement,

wherein a trailing edge of said fore wing is spaced from a leading edge of said aft wing by a gap,

wherein an average value for said gap is less than a root chord of said fore wing,

wherein said aft wing has first side panels and control surfaces on at least one of said aft wing and said side panels, and a tapered planform with positive sweep, said fore wing has non-positive trailing edge sweep, said fore wing and said aft wing being disposed at different heights, and said arrangement being free of additional wings or tail arrangement, wherein said Reynolds numbers are based on a characteristic chord length of one of said fore wing and said aft wing, and wherein a planform area of the aft wing is not less than a planform area of the fore wing

32. The UAV according to Claim 30, wherein said tandem arrangement of said fore wing and said aft wing has an overall width W and an overall length L including any control surfaces of said UAV, and the sum of ~~planform~~ both fore and aft wing planform areas of said tandem arrangement is at least 70% of the product $W \times L$.

Art Unit: 3644

43. (New) The UAV of Claim 4, wherein said fore wing is unconnected from said aft wing independently of said fuselage.--

2. The following is an examiner's statement of reasons for allowance: The prior art does not disclose nor render obvious a micro UAV having a tandem wing arrangement where the average distance between the wings is less than a root chord of the forward wing.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN M. O'HARA whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy D. Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JOSHUA J MICHENER/
Primary Examiner, Art Unit 3644

/B. M. O./
Examiner, Art Unit 3644